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AN ESSAY

ON

THE HIP DISEASE;

SUBMITTED,

BY AUTHORITY OF THE PRESIDENT AND HIS COUNCIL,

TO THE EXAMINATION OF THE

Royal College of Surgeons of Edinburgh,

WHEN CANDIDATE

FOR ADMISSION INTO THEIR BODY, IN CONFORMITY TO THEIR
REGULATIONS RESPECTING THE ADMISSION OF
ORDINARY FELLOWS.

BY

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THE HIP JUBBARD

BY J. H. JUBBARD

OF THE HISTORY OF THE HIP JUBBARD

AND ITS VARIATIONS

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TO

DR KELLIE.

MY DEAR SIR,

IN prefixing your name to the following Essay, I am less anxious to claim, for so jejune a performance, your approbation, than as a means of testifying my grateful sense of the many advantages and acts of kindness which, for the last twelve years, I have had the opportunity of enjoying under your tuition. I trust you will long continue in the exercise of that happy union of sound judgment and enthusiastic zeal for the advancement of our Profession, which have raised you to its most distinguished rank; and which, combined with the most liberal and honourable conduct towards all its Members, have entitled you to their highest esteem, and the approbation of the community.

I remain,

MY DEAR SIR,

With sentiments of the highest respect,

Your grateful and obliged pupil,

J. S. COMBE.

LEITH, *May*, 1823.

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ESSAY

ON

THE HIP DISEASE.

THE Disease which I shall very briefly describe in the following pages, is one of the most distressing and hopeless in the catalogue of human infirmities.

It has been known from the earliest periods in the annals of physic; and Hippocrates, with admirable judgment and attentive observation, acquired so accurate a knowledge of its nature, and of its method of treatment, that the experience of more than 2000 years has scarcely added any thing in the way of prognosis or cure. His description and method of practice were borrowed by Celsus, Ætius, Paulus Ægineta, and other ancient authors. Neither was it unknown to some of our old surgeons,

as Paré and Wiseman ; but, for a long time, indeed until the beginning of the last century, its existence seems to have been overlooked, and its history forgotten. Neither the French nor English surgeons seem to have paid any attention to it. It is to the celebrated Petit, who, resembling John Hunter, not less in his zeal for the improvement of surgical knowledge, than in his disregard (*culpable*, undoubtedly,) for the writings and observations of the older authors, that we are indebted, at least, for a renewed attention to this subject, and for a fuller account of its symptomatology. Still later, we have derived much valuable information from the labours of several British surgeons, Falconer, Crowther, Ford, and, in an especial manner, Mr Brodie. The latter gentleman, in his admirable pathological work on the joints, has conferred a great benefit on the profession by his excellent essay on this disease. We are indebted to him almost solely for all the light which dissection has thrown on this disease, and for a more correct diagnosis and rationalé of the symptoms. Perhaps future observation will show that he has taken rather a limited view of the nature of the affection, and that it is not of so uniform a character as he endeavours to show.

This disease has received various appellations—*Ischias*,*—*Morbus Ischiadicus*, *Dolor Coxarum*,†—*Morbus Coxarius*,‡—*Arthropuosis*.§ Petit, ignorant of its description in the older authors, first noticed it in a paper entitled—“*Sur les Chutes qui causent une Luxation de la Cuisse, dont les auteurs n’ont point écrit;*”||—and afterwards, in his “*Traité des Maladies des Os*,”¶ under the denomination of “*La Luxation de la Cuisse qui succède aux Chutes sur le Grand Trochanter*.” Boyer and Richerand, following the steps of their distinguished master, though better acquainted with its true nature, have styled it “the spontaneous luxation of the femur, secondary or consecutive.”** In this country it has been named the Hip-disease, or Scrofulous Disease of the Hip-joint.

* Hippocrat. Aphor. sect. iv. cap. 59, 60.

† Celsi de Medic. lib. 4, cap. 22.

‡ De Haen, Ratio Medend. tom. 2, cap. 4.

§ Cullen, Nosol. Method. Class 1, Ord. Phlegmas.

|| Mem. de l’Acad. Royale des Sciences, 1722.

¶ Tom. 1, p. 317.

** Boyer’s Lectures, chap. 12. Richerand. Nosog. Chirurg. tom. 3.

SYMPTOMS.

Too much attention cannot be paid to the first indications of this alarming disease. Unhappily, the patient often suffers, for months, under a degree of lameness and slight pain, the premonitory symptoms of this disease, ignorant of its nature, and subjecting himself to exercise and irritation, at the only time when medical aid, judiciously recommended, would perhaps be of any service. It is a disease chiefly of youth, and, of these, attacks the more delicate and sickly. It rarely appears during infancy, and seldom after the full growth is attained. It has been long considered of a scrofulous nature, or, at least, occurring more frequently in those predisposed to struma. The peculiar effects which it produces, and its beginning in ulceration of the cartilages, has led Mr Brodie to doubt this connexion. Unquestionably, it is more usual for the cancellous structure of the bones to be affected in the strumous habit; but we see no reason, *a priori*, to doubt its attacking both ossific and cartilaginous structures, and producing in them changes, modified by the peculiarity of structure. Such is the fact with regard to other organs; and

I am inclined to think that it holds true with this also. It certainly occurs more frequently in those families, members of which fall victims to tabes mesenterica, pththisis, and other scrofulous diseases. Thus I have seen it occur in one young woman, three of whose sisters had fallen victims to tubercular pththisis.

It often exists for a considerable time without attracting particular attention, and is considered merely rheumatic. The patient is observed to be stiff in rising from his chair, to walk lame, dragging the affected limb, getting soon fatigued with any exercise, often standing with one foot before the other, and bearing the weight of the limb upon the toes; he is easily fatigued, and his looks indicate debility and irritation. The pain varies in its intensity and situation: At first it is generally very tolerable, and the patient complains only of the inability to walk;—at other times it is acute and sudden;—he can date, from a particular moment, the period of attack, often referring it to a stroke on the part, a slip of the foot in walking or running, or to exposure to cold. In general, however, no exciting cause can be assigned; the pain varies in situation,—about the top of the thigh, behind the trochanter, frequently in the groin, and stretching

down the thigh, chiefly on the outside, as far as the knee or foot; the knee is often affected, sometimes swelled, and frequently misleads both patient and surgeon as to the seat of the disease. In general, the patient suffers little when at rest; but the handling of the limb, or attempt at motion, excite pain, often to an excruciating degree. There is rarely any tumefaction about the hip, but occasionally in the glands of the groin. The progress of the disease is very various; it rarely completes its course in less than four months, sometimes as many years. The limb is observed to become softer and less bulky,—the hip is evidently flattened, from absorption of the glutæi muscles. Another symptom often attracts the attention of the patient,—a lengthening of the limb. This is only apparent, not real. It was fully credited by Petit and others, and attributed to the filling up of the cotyloid cavity by the effusion within the joint; but it has been justly remarked, that, supposing this to be true, the nates should only be affected, and that the length of the limb, the head of the bone being pushed outwards, and not downwards, should remain unaffected. The elongation, however, is only apparent.* John Hunter and Mr Brodie satis-

* Crowther—Brodie.

factorily account for it, from the inclination of the pelvis, the direction of which is altered on account of the habits of the patient, even to such a degree that the spine and shoulder become also affected in the same manner. If the patient be placed on his back, and a tape be drawn from the superior anterior spinous processes of the os ilii of either side to of the ankle, the distance will be found the same. There is only one case in which the limb can increase in length, and that is not well established, *viz.* in the latter stages, if the head of the bone is drawn out of the socket down upon the obturator ligament.

The general health of the patient often remains unimpaired for a long time. The stomach, in general, even to the last, performs its functions well. Usually the pulse is quickened, and the patient labours under an irritative fever,—the strength becomes impaired,—severe pain is felt on any motion of the limb, which is kept in a half-bent position,—the sleep is disturbed by startings and moaning:—these are supposed to indicate the formation of matter. But, often less equivocal symptoms present themselves; there is great febrile irritation, rigors, flushings, and sweatings; in short, all the phenomena of hectic fever. About this time the

limb is found to be shorter, owing to the head of the bone being drawn up on the dorsum of the ilium. Abscesses now form in various parts about the trochanter, dorsum of the ilium and thighs; the suppuration is slow, and attended with an aggravation of all the symptoms; sinuses are formed between the muscles; occasionally the head of the bone is exposed; and, after a longer or shorter duration of misery, the patient sinks exhausted. I have seen one case prove speedily fatal, from ulceration having extended to the femoral artery.

Occasionally the patient's life is saved at the expense of a lame limb, when ankylosis takes place in the joint; or, still more rarely, after the dislocation on the dorsum of the ilium. This termination of the disease can be hoped for only in the young, and rarely in them.

It is a matter of great importance, but sometimes of considerable difficulty, at least in the early stages, to draw a just diagnosis of this disease. In the more advanced stages there can be no difficulty; "It is to be founded, however, not on a single symptom, but on the combination of symptoms, and on the history of their progress; so that no degree of experience can enable the surgeon to form his judgment correctly, without a careful investi-

gation of the circumstances of the case before him.”*

The morbid affections most liable to be confounded with the Hip Disease, are—

1. Rheumatism, from which it is in general easily distinguished, by attention to the history of the case, and of the seat and direction of the pain, and position of the limb, as noticed above.

2. Simple inflammation of the synovial membrane of the Hip. In this case there is considerable effusion round the joint, with acute pain at the beginning, but rarely so severe as in the advanced stages of ulceration of the cartilages. The pain is aggravated considerably by motion; but the pain produced in this case, by pressing the head of the bone against the acetabulum, is much slighter. In this case there is also a wasting of the nates, but it is always preceded by swelling.

3. Chronic inflammation of the soft parts in the vicinity of the Hip, terminating in the formation of a chronic abscess. In this case the pain is more limited in extent and degree, less aggravated by motion, and speedily followed by a pointing abscess.

4. It is more difficult, nay, sometimes impossible, and even if it were possible, it is of little avail, to

* Brodie *ut supra*.

distinguish the Hip Disease from a scrofulous disease which attacks the cancellous structure of the bones. In this latter disease there is considerable tumefaction of the parts, with inconsiderable pain of the part, rarely stretching down the limb; in both cases there is wasting of the limb and nates, and, in both, abscesses form in the neighbourhood.

Mr Brodie has suspected, in some cases, that the ulceration of the cartilages commenced next to the bone, and is inclined to believe that there may be ulceration, without any formation of matter; as we know that the contrary takes place in some structures.

5. A diseased state of the sciatic nerve, or tumours pressing on it, may give rise to many of the symptoms of Hip Disease. In general, the pain is referred to a particular point, and follows the course of the nerve. “ I have found a disease of the
 “ nerve in the ham, producing pain in the sole of
 “ the foot, continued for nearly two years. So I
 “ believe, that in this case, (the Hip Disease,) the
 “ ischiadic nerve, passing so near the seat of dis-
 “ ease, is affected, and pain is the consequence,
 “ which is attributed to the outside of the thigh,
 “ knee, and leg. When the pain is deep in the
 “ groin, and in the inside of the thigh and knee,

“ it is probable that the obturator nerve may be involved in the inflammation.”*

We are indebted to Mr Ford and Mr Brodie for all the information we have acquired of the peculiar effects of this disease on the parts affected, and for a more faithful history of its progress. The opportunities, nevertheless, of examining the parts in an early stage of the disease, have been too few, perhaps, to warrant all the conclusions of Mr Brodie. He conceives that the original seat of this disease is in the cartilages, generally first affecting the acetabulum; that this change consists of erosion and ulceration, with or without the formation of pus; and that the ligaments, round and capsular, as well as the adipose and cellular substance and bones, are only affected secondarily. He does not conceive that inflammation forms any stage of the complaint; yet, some of the appearances observed in his own cases would rather lead to the inference that an increased vascular action is occasionally present. Thus, in examining the joint of one side, which had long suffered from the disease, all the usual appearances were found, such as destruction of cartilage and ligaments, collection of pus and carious bones;—in the other side, however, where

* C. Bell. *Operative Surgery*, vol. II, p. 141.

no disease was suspected to exist, there was merely a slight destruction of the cartilage, with a coating of coagulable lymph covering the denuded bone. I conceive that too little stress has been laid on this fact, as it is of considerable importance in directing our practice in its earlier stages. According to the testimony of some authors, however, ulceration of the cartilages is by no means an unusual appearance, and is not of so alarming a nature as Mr Brodie would lead us to believe. Thus Mr Shaw, whose pathological remarks are always valuable, says, that “ when we open the joints, we “ shall be surprised to find the great number of in- “ stances in which the cartilages of the heads of “ the bone seem to be eroded. I have so frequent- “ ly seen, in all kinds of subjects, (and even in the “ joints of animals,) the appearance which is de- “ scribed by Mr Brodie as ulceration of the carti- “ lage, that I cannot agree with him in supposing “ that it is the effect of disease. I rather suspect “ that it is a change which very frequently occurs “ in the structure of cartilage, without its being “ necessarily followed by any symptoms which “ would lead us to suspect its having taken place.”*

The erosion described by Mr Brodie seems to be

* Manual of Anatomy, p. 174.

the result merely of interstitial absorption; but I am inclined to think, that, in this disease, there is a true ulceration, the consequence of an inflammation of the cartilages, modified by the locality of the joint and the constitution of the patient.

In Mr Ford's first case, the head, and great part of the neck of the thigh bone, were found destroyed; the cotyloid cavity was thoroughly diseased; the caries affecting the os pubis, ischium, and spine of the ilium (p. 74). The appearances were equally remarkable in the other case:—Two large spoonfuls of matter were discharged from the cavity of the joint; which was filled up with fungous flesh, intermixed with bony matter, exfoliated from the head of the femur. The following are the usual appearances met with:—A thickened, softened, or inflamed state of the cartilages of the acetabulum and femur, generally attacking the former first. It is found eroded to a greater or less degree; the edges are loose, and easily detached from the subjacent bone; occasionally there is an effusion of coagulable lymph, and the adipose matter is dark in colour, and is often the nidus of a small abscess. The round ligament is detached from the acetabulum, and often wholly absorbed. The capsular ligament is thickened, and cannot be

distinguished from the surrounding parts ;—the bones are extensively affected, carious, with detached pieces in the joint or neighbouring abscesses ;—the head of the femur is often much shrunk in bulk, and the rim of the acetabulum is also absorbed ;—large abscesses are formed in the joint, but soon spreading to the hip, thigh, or pelvis ;—the cellular substance of the limb is distended with a watery effusion, and the muscular fibre is pale and wasted.

In the following summary, Mr Brodie has detailed very accurately the history of these morbid changes :—

“ 1st, In the most advanced stage of the disease,
 “ none of the parts entering into the composition
 “ of the joint retain their natural structure. The
 “ soft parts are blended into a confused mass.
 “ Sometimes the head of the femur is completely
 “ destroyed, and there remains only the neck, or
 “ a portion of the neck, of that bone. Often the
 “ projecting margin of the acetabulum is entirely
 “ absorbed ; so that, instead of a cavity, there is a
 “ broad carious surface of the os innominatum.
 “ In a few instances, a portion of the carious bone
 “ is found dead, and undergoing the process of
 “ exfoliation, or having already exfoliated into the
 “ cavity of the joint.

“ 2d, In whatever period of the disease the examination is made, the cartilages are found in a state of ulceration ; but the morbid affections of the soft parts vary very much ; nor are they much altered from their natural state, except in the most advanced stages of the malady.”

From these circumstances, he is led to conclude, that the cartilage is the part primarily affected ; and the following he states as the progress of the disease :—

“ 1st, Ulceration takes place in the cartilages ; generally in that of the acetabulum first, and in that of the head of the femur afterwards. Sometimes it begins in both at the same time.

“ 2d, The ulceration extends to the bones, which become carious ; the head of the femur is diminished in size ; and the acetabulum is rendered deeper and wider.

“ 3d, Abscess forms in the joint, which, after some time, makes its way, by ulceration, through the synovial membrane and capsular ligament, into the thigh or nates, or even through the bottom of the acetabulum, into the pelvis. Mr A. Cooper has shown to me two specimens, in each of which the abscess had burst into the rectum.

“ 4th, In consequence of the abscess, the syno-

“ vial membrane and capsular ligament become in-
 “ flamed and thickened ; the muscles are altered
 “ in structure ; sinuses are formed in various parts ;
 “ and at last all the soft parts are blended together
 “ into one confused mass, resembling the parietes
 “ of an ordinary abscess.”

Mr Brodie admits, that the hip-joint is liable to other morbid affections, which ultimately affect the cartilages ; but he conceives, that, in the Hip Disease, properly so called, the primary affection is ulceration of the cartilages.

Very little need be said as to the prognosis which should be held out in this lamentable disease. In all cases, it must be extremely guarded, and fearful of the worst consequences. The natural course of the disease seems to be the destruction of all the parts, succeeded by such irritation that the constitution soon sinks under it. The only circumstances which can lead us to hope for a more favourable issue, are the disease occurring in youth, with unimpaired health, and a rigid attention to rest, and other remedial means. By attention to these measures, in an early stage of the complaint, a few cases do well, and the limb is left uninjured. At

other times, the life is preserved at the expense of an anchylosed joint, or of extensive and troublesome sinuses.

The duration of the disease is very various. Few constitutions, however, can long withstand the debilitating effects of the suppuration and extreme pain ; and they soon sink under Phthisis Ischiadica. (De Haen.)

METHOD OF TREATMENT.

A very few observations will comprise all that need be stated as to the plan of treatment which should be followed in this disease. It has been handed down to us from the time of the Father of Physic ; nor can we boast of the addition of a single remedy to those which he so judiciously recommends.

“ Quibus, a diuturno coxendicis dolore, femoris
“ caput suo loco excidit, iis crus tabescit, et clau-
“ dicant, nisi urantur.”—*Aphor.* 60, *sect.* 7.

In some respects, even, his practice was more decisive and energetic than that followed by his successors ; for, in addition to local and general bleeding, fomentations, absolute rest, and the destruction of the neighbouring parts by the actual cautery,

he recommended large and deep incisions through the muscular substance, even to the bone, as we find from several cases detailed in his works. He seems to urge the detraction of blood, in the earlier stages, more fully than most later authorities.

Celsus recommends the use of warm fomentations and the cautery :—“ *Ultimum est, et in veteribus quoque morbis efficacissimum, tribus aut quatuor locis super coxam, cutem candentibus ferramentis exulcerare.*”*

I need scarcely refer to authors of more modern date, in confirmation of the benefits derived from the practice just stated. Succeeding to Celsus, Paulus Ægineta, Ætius, Prosper Alpinus, Ambrose Paré, and all who have written on the disease, give their testimony in favour of the ancient practice. Some recommend the actual, others the potential cautery : some are partial to setons, others prefer issues :—“ *Clarissimus Boerhavius aiebat sæpius nobis, si vellet arcanum quoddam vendere, id fore tectas, et sub alia specie occultatas, cantharidas in ischiadicis.*”† “ *Hoc remedium,*” continues De Haen, “ *emplastri forma, palma manu majus, applicabat coxæ, et dein, post ingentem vesicam*

* De Medic. lib. iv. cap. 22.

† De Haen. loc. citat. p. 152.

“ contractam, auferebat, vulnusque percurabat :
 “ dolore non abeunte, repetabat idem octiduo post ;
 “ idque aliquoties ad tertiam quartamve vicem ;
 “ quamvis raro id sibi contigisse testaretur ut
 “ quarto emplastro indigeret.”

It is unnecessary to detail more minutely the practice recommended by several other distinguished writers. In the early adoption of the following means, we are guided by the unanimous concurrence of all authors, ancient and modern, and possess the most likely means of arresting or suspending the progress of this disease.

If there is much pain in the beginning of the disease, the local abstraction of blood seldom fails to give great relief. This may be effected by leeches, or still more powerfully, by cupping, the incisions being made behind the trochanter. Warm fomentations should next be applied, either topically or in the form of a general bath. The only disadvantage attending the use of this remedy is the motion to which it subjects the patient. The Bath waters, and other hot springs, have long been celebrated in the cure of this disease ; but we must never place our sole reliance on such measures. More active practice must be had recourse to ; and, in exciting an irritation in the vicinity of the parts,

and a purulent discharge, we possess the most likely method of relieving, or retarding the progress of the disease. This may be done either by the actual or potential cautery, hot irons, moxa, setons, vesication, drains excited by peas, savine, or cantharides. Each practice has been supported by its advocates ; but I am inclined to think, that it is very immaterial to which we resort, provided the discharge is sufficiently copious, and long enough sustained. In the selection of the particular means, and in the place to which we shall apply them, we must be guided very much by the feelings and comfort of our patient. A point near to the joint, and not interfering with the comfort of the patient in sitting, is to be preferred. If a caustic issue is to be made, the hollow behind the trochanter answers very well ; or if a seton is thought advisable, it may be passed, by a crooked needle, in the groin. From the vicinity of the great vessels, the application of caustic might be attended with dangerous consequences. In the early stages, a large blister surrounding the joint has often an immediate effect in allaying the pain. Mr Crowther prefers the savine cerate to dress the issues ; but it is not attended with any peculiar advantages, and often excites great irritation. These drains must be sup-

ported during the whole progress of the disease, at least as long as there is any prospect of a favourable termination, or of ankylosis.

Perfect rest must be enjoined. Indeed, the patient soon finds that the least motion aggravates his suffering; and that his only relief is in quietude. Anodynes are generally required to procure sleep, and allay the pain. Hyosciamus is to be preferred.

Notwithstanding the diligent use of these means, the progress of the disease is seldom arrested; and, ere long, abscesses form in the joint, making their way to the skin or pelvis. In general, it is better to leave them to their natural progress. Mr Brodie has recommended that they should not be punctured until late.

During the course of the complaint, the general health must be carefully attended to, and the strength supported and economized. If there is fever and irritation at the beginning, the diet must be light and nutritive; and cooling laxatives are to be given occasionally. In the latter stages, the appetite is generally good, and animal food is eagerly desired; which, with a moderate portion of malt or vinous liquors, need not be refused.

I know of no peculiar or specific internal remedy which deserves a trial, although several have been

recommended. The light which dissection has thrown upon this disease must for ever forbid us to hope that its progress can be arrested by such means ; or even that life can be preserved by the dreadful alternative of amputation : for we find, that its ravages generally begin in the acetabulum, and spread to the femur afterwards.

THE END.